AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) Acquisition module for the measurement of physical parameters, comprising:

at least one analogue-to-digital converter, [[and]]

at least one input connector capable of receiving a sensor, ~~characterized in that it also comprises~~

a supply source and a reference impedance arranged in series between said supply source and a terminal of the input connector,

~~; and in that~~

said analogue-to-digital converter ~~comprises~~ comprising differential inputs, a reference input supplied with a voltage taken at the terminals of said reference impedance and a conversion input supplied with a voltage taken via the input connector at the sensor terminals, and

~~in that it also comprises~~

means for delivering an image of the physical parameter measured by the sensor.

2. (original) Acquisition module according to claim 1, characterized in that it comprises a memory for storing parameters and variables.

3. (previously presented) Acquisition module according to claim 1, characterized in that it consists of a card which can be plugged into a processing unit such as a microcomputer.

4. (original) Acquisition module according to claim 3, characterized in that the supply source originates from the processing unit.

5. (previously presented) Acquisition module according to claim 1, characterized in that the supply source is internal to the analogue-to-digital converter.

6. (previously presented) Acquisition module according to claim 1, characterized in that the supply source is programmable.

7. (previously presented) Acquisition module according to claim 1, characterized in that it comprises processing means capable of processing the digital data originating from the analogue-to-digital converter in order to determine a value of the physical parameter measured.

8. (previously presented) Acquisition module according to claim 1, characterized in that it comprises means for protection against overvoltage arranged between the analogue-to-digital converter on the one hand and the reference resistor and the connector on the other.

9. (cancelled)

10. (original) Acquisition module according to claim 9, characterized in that the analogue-to-digital converter consists of a Delta-Sigma converter.

11. (currently amended) Acquisition module according to claim 1, characterized in that the analogue-to-digital converter is of the common mode input type together with ~~; and in that it comprises~~ a first differential amplifier arranged between the reference input and the reference impedance and a second differential amplifier arranged between the conversion input and the sensor.

12. (previously presented) Acquisition module according to claim 1, characterized in that it comprises a plurality of acquisition channels.

13. (new) Acquisition module for the measurement of physical parameters, comprising:

at least one analogue-to-digital converter;

at least one input connector capable of receiving a sensor;

a supply source and a reference impedance arranged in series between said supply source and a terminal of the input connector; and

image delivery part to deliver an image of the physical parameter measured by the sensor,

a reference resistor,

said analogue-to-digital converter comprising differential inputs,

a reference input supplied with a reference voltage taken at the terminals of said reference impedance, and

a conversion input supplied with a voltage taken via the input connector at the sensor terminals, wherein,

a first current which passes through measurement branch ("I_{mes}") is the same as a second current ("I_{ref}") which passes through the reference resistor ("$I_{mes} = I_{ref}$"),

a voltage present at the terminals of the reference resistor is measured by the reference input of the analogue-to-digital converter and is equal to a resistance of the resistor times the second current ("$V_{ref} = R * I_{ref}$"),

a voltage at the terminals of the sensor is a resistance of the sensor times the first current ("$V_{mes} = R_{sensor} * I_{mes}$"),

said converter produces an output measurement non-dependent on the supply voltage and non-dependent on measurement current.